

REMARKS

Present Status of Patent Application

This response accompanies an RCE application, which is filed as a timely response to the FINAL Office Action mailed on October 4, 2002. For the reasons set forth herein, reconsideration and allowance of the application and presently pending claims 1-20 are respectfully requested.

Examiner Interview

The undersigned wishes to thank Examiner Ms. Rita Leykin for providing an opportunity to discuss the merits of various aspects of the invention in a telephone interview between the Examiner and David Rodack (Reg. No. 47,034) on November 19, 2002. Mr. Rodack expressed concern that the current reference, *Frazee* (USPN 4,121,141), does not include all of the elements of independent claims 1 and 14, and therefore fails to support the 35 U.S.C. §102(b) rejection used by the Examiner (especially the claim language after the thereby clause in claims 1 and 14). The Examiner acknowledged that the language in independent claims 1 and 14 after the thereby clause (e.g., "thereby eliminating said peak current introduced when said inductive circuit is actuated") was a proper limitation for considering patentability to the claims. However, the Examiner also implied that she had not focused her search on this feature, and felt that she believed these features would be revealed in other (non-cited) art.

The Applicant believes that, since the peak current limiting language in claims 1 and 14 were present in the initial filing, the Applicant is entitled to withdrawal of the final rejection should an additional search on the peak limiting current aspect be required. However, the

Applicant has chosen to continue prosecution of the application via an RCE to provide the Examiner an opportunity to initiate a search should the Examiner deem it necessary to provide a more thorough examination of the claims, and reconsideration of the "thereby" clause.

Response to Rejection of Claims 1 -20 Under 35 U.S.C. §102(b)

In the Office Action, claims 1-20 stand rejected under 35 U.S.C. §102(b) as being allegedly unpatentable over *Frazee* (USPN 4,121,141), hereinafter *Frazee*. It is axiomatic that " [a]nticipation requires the disclosure in a single prior art reference of *each element* of the claim under consideration." W. L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 1554, 220 U.S.P.Q. 303, 313 (Fed. Cir. 1983)(emphasis added). Therefore, every claimed feature of the claimed invention must be represented in the applied reference to constitute a proper rejection under 35 U.S.C. § 102(b). For the reasons set forth below, Applicant respectfully traverse this rejection.

It is alleged in the Office Action that:

Frazee discloses in Fig. 1 and Fig. 2 a dc motor speed control circuit with tachometer feedback signals proportional to the dc motor 66 speed with a voltage reference representing the desired motor speed and generates pulses for controlling a variable duty cycle switch in the motor circuit.

With reference to Fig. 1, *Frazee* teaches:

- A tachometer 10, that generates an AC signal that is applied to the input terminals 12 and 14;
- A generator circuit 24, that generates a pair of complementary square wave output signals as indicated by the waveforms A and B, (see Fig. 2). These output signals are at a constant amplitude determined by the supply voltage applied to the switch 24 and are at the frequency of the ac signals produced by the tachometer 10 (see column 2, lines 28-33);
- A potentiometer 58 that serves as a motor speed adjustment and applies a threshold level indicated by the reference 60 in the saw-tooth waveform H, as shown in Fig. 2 to the amplifier 56. The amplifier 56, is therefore a signal comparator and produces an output signal J;

As a power first applied to the motor circuit, the motor 66 is stationary and no signals are introduced from tachometer 10a the input terminals 12 and 14. Therefore, a signal G at the collector of transistor 60 remains low and the comparator 56 produces a constant high level output signal, J, that turns power switch 64 to apply maximum start current to the motor 66. The motor 66 starts turning and when the tachometer signal is of sufficient amplitude to switch the amplifier 24 the integrator capacitor 54 starts to charge for a constant period determined by its input waveform G and to discharge for a period of capacitor 54 becomes shorter until the average voltage 60 that is applied by potentiometer 58 and illustrated in waveform H. This results in a 50% duty cycle rectangular current drive to output transistor 64 to control the rotational speed of motor 66.

(Emphasis added).

Frazee appears to disclose a motor control circuit for controlling the motor's speed.

Independent claim 1:

With regard to claim 1, *Frazee* does not disclose, teach, or suggest at least:

1. A starting device for eliminating a peak current introduced when an inductive circuit is actuated, comprising:
 - a signal generator electrically connected to said inductive circuit and generating a first signal corresponding to a signal output by said inductive circuit;
 - a comparative circuit electrically connected to said signal generator for converting said first signal to a second signal to be compared with a reference signal to generate a control signal; and
 - a controlling device** electrically connected with said inductive circuit and said comparative circuit for receiving said control signal and gradually increasing a current flowing through said inductive circuit corresponding to said control signal, thereby eliminating said peak current introduced when said inductive circuit is actuated.

(Emphasis added).

Applicant respectfully submits that independent claim 1 is allowable for at least the reason that *Frazee* does not disclose, teach, or suggest in the specification or in the figures "a **controlling device** electrically connected with said inductive circuit and said comparative circuit for receiving said control signal and gradually increasing a current flowing through said inductive circuit corresponding to said control signal, thereby eliminating said peak

current introduced when said inductive circuit is actuated." The specification of *Frazee*, as pointed out by the Examiner in the Office Action as noted above, supports Applicant's assertion. "As a power first applied to the motor circuit, the motor 66 is stationary...Therefore, a signal G at the collector of transistor 60 remains low and the comparator 56 produces a constant high level output signal, J, that turns power switch 64 to apply maximum start current to the motor 66." Thus, *Frazee* does not eliminate said peak current introduced when said inductive circuit is actuated, but in contrast, provides maximum start current. Further, Applicant believes that the aforementioned arguments also address the Examiner's arguments included in the Response to Remarks section of the Office Action.

Frazee fails to disclose, teach, or suggest every element of the Applicant's claimed invention, and thus the rejection under 35 U.S.C. § 102(b) should be withdrawn. Further, because independent claim 1 is allowable over *Frazee*, dependent claims 2-13 are allowable as a matter of law for at least the reason that the dependent claims 2-13 contain all elements of their respective independent base claim. See, e.g., *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

Independent claim 14:

With regard to claim 14, *Frazee* does not disclose, teach, or suggest at least:

14. A starting method for eliminating a peak current introduced when an inductive circuit is actuated, comprising the steps of:
 - (a) providing a first signal corresponding to a signal output by said inductive circuit;
 - (b) converting said first signal to a second signal to be compared with a reference signal for generating a control signal; and
 - (c) **gradually increasing a current flowing through said inductive circuit corresponding to said control signal, thereby eliminating said peak current**

introduced when said inductive circuit is actuated.

(Emphasis added).

Applicant respectfully submits that independent claim 14 is allowable for at least the reason that *Frazee* does not disclose, teach, or suggest in the specification or in the figures **“gradually increasing a current flowing through said inductive circuit corresponding to said control signal, thereby eliminating said peak current introduced when said inductive circuit is actuated.”**

The specification of *Frazee*, as pointed out by the Examiner in the Office Action as noted above, supports Applicant’s assertion. “As a power first applied to the motor circuit, the motor 66 is stationary...Therefore, a signal G at the collector of transistor 60 remains low and the comparator 56 produces a constant high level output signal, J, that turns power switch 64 to apply maximum start current to the motor 66.” Thus, *Frazee* does not **eliminate said peak current introduced when said inductive circuit is actuated**, but in contrast, provides **maximum start current**. Further, Applicant believes that the aforementioned arguments also address the Examiner’s arguments included in the Response to Remarks section of the Office Action.

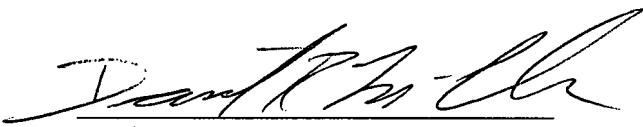
Frazee fails to disclose, teach, or suggest every element of the Applicant’s claimed invention, and thus the rejection under 35 U.S.C. § 102(b) should be withdrawn. Further, because independent claim 14 is allowable over *Frazee*, dependent claims 15-20 are allowable as a matter of law for at least the reason that the dependent claims 15-20 contain all elements of their respective independent base claim. See, e.g., *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

CONCLUSION

Applicant respectfully submits that all claims are now in proper condition for allowance, and respectfully request that the Examiner pass this case to issuance. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

A check in the amount of \$750.00 is enclosed herewith to cover the fee associated with the Request for Continued Examination. If there is any deficiency in this fee, or if any additional fees are required, you are hereby authorized to charge any and all such fees to Deposit Account No. 20-0778.

Respectfully submitted,



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